

Remarks:

Reconsideration of the application is requested.

Applicant acknowledges the Examiner's confirmation of receipt of the claim for priority and certified copy of the priority application under 35 U.S.C. § 119(a)-(d).

Claims 1 and 3-13 are now in the application. Claims 1, 6-8 and 13 have been amended. No new matter is believed to have been added. Claim 2 has been cancelled without prejudice.

In item 2 on page 2 of the Office action, claims 1-2 and 8 have been rejected as being fully anticipated by Gierut (U.S. Pat. No. 6,122,161) under 35 U.S.C. § 102.

In item 4 on page 4 of the Office action, claims 3-7 and 9-13 have been rejected as being obvious over Gierut in view of Leman (U.S. Pat. No. 6,046,912) under 35 U.S.C. § 103.

The rejections have been noted and the claims have been amended in an effort to even more clearly define the invention of the instant application. Support for the changes is found, inter alia, in original claims 2 and 6 of the instant application.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for a printed circuit board configuration, containing:

a first printed circuit board having first defined dimensions corresponding to a *first standard*, and having a first portion of a plug connector, said first printed circuit board extending in a given plane and *being a main board of a data processing device*;

a second printed circuit board having a second portion of said plug connector, said second printed circuit board connectable to said first printed circuit board through said plug connector to form a connected configuration;

said first and second printed circuit boards both extending in said given plane when connected in said connected configuration; and

said second printed circuit board having dimensions such that said connected configuration has second defined dimensions corresponding to a *second standard*.

Accordingly, in the *present invention*, the printed circuit board configuration includes a first printed circuit board having defined dimensions and a second printed circuit board, which can be connected to the first printed circuit board by a plug connector. The printed circuit board configuration is characterized in that (in the connected state) the first and second printed circuit boards are situated in a plane and the dimensions of the second printed circuit board are such that the configuration including the first and second printed circuit boards has second defined dimensions. The first and second defined dimensions are standard variables. The first defined dimensions correspond to a first standard and the second defined dimensions correspond to a second standard. Further, the first printed circuit board is the main board of a data processing unit.

The feature that the first printed circuit board is a main board suggests that the first printed circuit board is an *independent unit* (assembly). One would also be able to use the first printed circuit board independently.

The Gierut reference discloses a circuit board assembly (10) having several circuit board subassemblies (12) having a device (14) for releasably (electrically and mechanically) connecting the subassemblies (12) to a general configuration of a plane. The subassemblies (12) have a device (16) for

electrically and mechanically interconnecting the subassemblies (12) to a system back plane (18).

Accordingly, Gierut discloses a printed circuit board configuration in one embodiment. The modules 1-3 do not follow standard dimensions, but are rather determined by the manufacturer of the printed circuit board. It can be seen neither from the sole figure of Gierut nor from the specification that it deals with *standard dimensions*. Standard dimensions would not make sense in Gierut since the individual modules cannot be used independently.

In contrast to claim 1 of the instant application, the three modules of Gierut are not independent units. Instead, a circuit (which is normally placed on a large printed circuit board) is distributed on three printed circuit boards (i.e., the modules). Gierut is aimed at testing the modules individually and exchanging them individually in cases of errors or changes in "circuit configuration". See column 1 to 2, line 19. Thus, it is clear that none of the modules can be used independently.

In particular, Applicant points out that Gierut does not teach or suggest that one of the modules can be a main board. Further, it is not obvious for a skilled artisan to configure one of the modules as a main board, since the goal is to

divide one large independent assembly into three subassemblies. Moreover, a main board (backplane) is provided into which the three modules are jointly inserted.

Gierut only teaches dividing a large assembly into several subassemblies. That is entirely different from the teachings of the instant application (which disclose an independent unit (assembly) with first dimensions and extending the second unit such that the entire configuration corresponds to standard dimensions).

Neither does Leman overcome the *deficiencies* of Gierut.

Clearly, the references do not show "a first printed circuit board having first defined dimensions corresponding to a *first standard*, and having a first portion of a plug connector, said first printed circuit board extending in a given plane and *being a main board of a data processing device*; a second printed circuit board having a second portion of said plug connector, said second printed circuit board connectable to said first printed circuit board through said plug connector to form a connected configuration; said first and second printed circuit boards both extending in said given plane when connected in said connected configuration; and said second printed circuit board having dimensions such that said connected configuration has second defined dimensions

corresponding to a *second standard*", as recited in claim 1 of the instant application (emphasis added). Claim 8 recites similar limitations.

Applicant believes that there is no teaching or suggestion in *the references* to incorporate the features of *one another*.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1 and 8. Claims 1 and 8 are, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claims 1 and 8, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1 and 3-13 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, the Examiner is respectfully requested to telephone counsel so that, if possible, patentable language can be worked out.

Please charge any fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and

Greenberg, P.A., No. 12-1099.

Respectfully submitted,

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For Applicant

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October 24, 2002

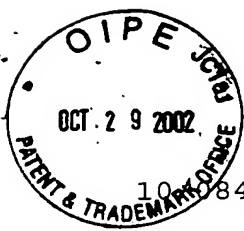
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the claims:

Claim 1 (amended). A printed circuit board configuration,  
comprising:

a first printed circuit board having first defined dimensions  
corresponding to a first standard, and having a first portion  
of a plug connector, said first printed circuit board  
extending in a given plane and being a main board of a data  
processing device;

a second printed circuit board having a second portion of said  
plug connector, said second printed circuit board connectable  
to said first printed circuit board through said plug  
connector to form a connected configuration;

said first and second printed circuit boards both extending in  
said given plane when connected in said connected  
configuration; and



said second printed circuit board having dimensions such that said connected configuration has second defined dimensions corresponding to a second standard.

Claim 6 (amended). The configuration according to claim 1, wherein[:

said first printed circuit board is a main board of a data processing device; and]

said second printed circuit board has slots for receiving plug-in cards.

Claim 7 (amended). The configuration according to claim 5, wherein[:

said first printed circuit board is a main board of a data processing device; and]

said second printed circuit board has slots for receiving plug-in cards.

Claim 8 (amended). A printed circuit board assembly, comprising:

a first printed circuit board having dimensions corresponding to a first dimension standard, said first printed circuit board substantially extending in a given plane and being a main board of a data processing device;

a second printed circuit board removeably connected to said first printed circuit board;

said first and second printed circuit boards:

forming a connected configuration when said second printed circuit board is connected to said first printed circuit board; and

both extending in said given plane when connected in said connected configuration; and

said second printed circuit board being dimensioned to have said connected configuration correspond to a second dimension standard.

Claim 13 (amended). The configuration according to claim 11, wherein[:

said first printed circuit board is a main board of a data processing device; and]

said second printed circuit board has slots for receiving  
plug-in cards.